

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/Ala Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021971**Date Inspected:** 13-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 14

This QA Inspector randomly observed the following work in progress in the Bay 14:

SMAW welding of weld joints SEG3020AJ-204, 265 located on PCMK OBG 14W. Welder was identified as 051348 QC was identified as ABF CWI Ji Cai Fang (QC1). Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was ZPMC QC Zheng Zhi Wei (QCA1), who was not a CWI.

Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2213-TC-U4b as verbally identified by QCA1.

Heat straightening of SEG3020E-051, 052 located on PCMK OBG 14W. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the heat straightening operation and recording data was QCA1, who was not a CWI. Heat treatment variables recorded by QCA1 appeared to comply with ZPMC document HSR1(B)-10184 as presented to this QA Inspector and verbally identified by QCA1.

SMAW welding of weld joint DP3138-001-001, 002 located on PCMK OBG 14W. Welder was identified as 066398. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-4112 as verbally identified by QCA1.

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

FCAW welding of weld joint SA3232A-001 located on PCMK OBG 14W. Welder was identified as 048696. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2233-ESAB as verbally identified by QCA1.

FCAW welding of weld joint SA3232A-018 located on PCMK OBG 14W. Welder was identified as 048443. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2233-ESAB as verbally identified by QCA1.

FCAW repair welding of weld joints SEG3020BC-001, SEG3020BE-001 located on PCMK OBG 14E. Welders were identified as 045175 and 067949. QC was identified as QC1, who was not a CWI. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-345-FCAW-1G(1F)-ESAB-repair-FCM as displayed on ZPMC Weld Repair Report B-WR20293 as presented to this QA Inspector and verbally identified by QCA1. However, the CJP beveled joints shown in the sketch on ZPMC Weld Repair Report B-WR20293 called for layering prior to welding the joints. No layering was observed and the joints were being welded with an approximate 30mm root opening with backing plate. In addition, the weld map showed that joint to receive an 8mm fillet weld. ABF Representative CWI Man Kit Li (ABF1) was present to observe the welding operation and instructed the welders to stop welding until a request for joint change could be submitted to Caltrans. This QA Inspector informed ABF1 that a Caltrans incident report would be generated concerning the above noted issues. For more information, see the photos below and Caltrans Incident Report 04-0120F4_TL-15_B218_03-13-11_Lift 14W - joint change without approval.

SMAW welding of weld joints DP3138-001-001~004 located on PCMK OBG 13AW. Welder was identified as 066398. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-4112-B-U2-2 as verbally identified by QCA1.

SMAW welding of weld joint SEG3013AH-001 located on PCMK OBG 13AW. Welder was identified as 045213. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA2 appeared to comply with WPS-B-T-4212-B-U2-2 as verbally identified by QCA1.

FCAW welding of weld joints SEG3013F-048~051 located on PCMK OBG 13AW. Welder was identified as 045143. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2233-ESAB as verbally identified by QCA1.

FCAW welding of weld joint SEG3013R-006 located on PCMK OBG 13AW. Welder was identified as 066421. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-T-2232-ESAB as verbally identified by QCA1.

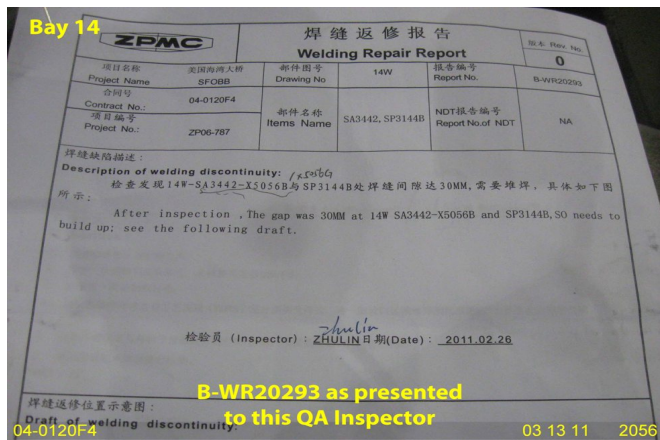
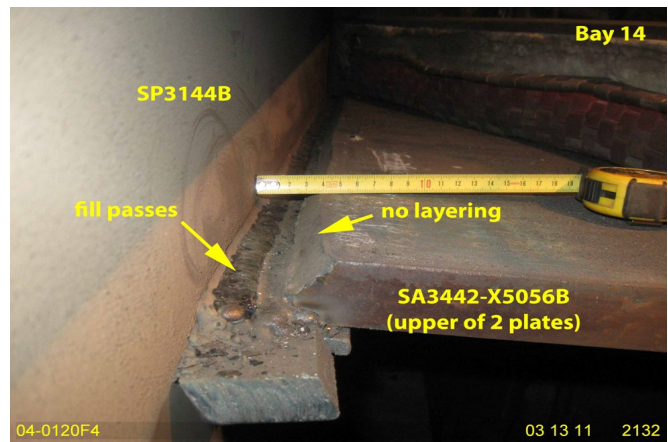
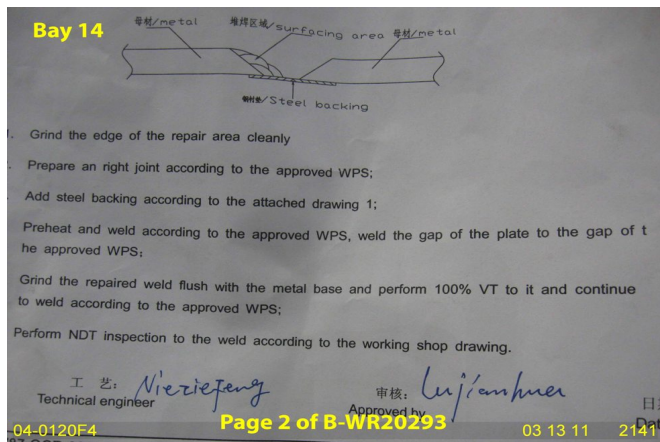
WELDING INSPECTION REPORT

(Continued Page 3 of 4)

SMAW welding of weld joint SEG3013-001-009 located on PCMK OBG 13AW. Welder was identified as 067829. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2214-B-U3b-FCM as verbally identified by QCA1.

SMAW welding of weld joint SEG3013J-006 located on PCMK OBG 13AW. Welder was identified as 047864. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding operation and recording data was QCA1, who was not a CWI. Weld variables recorded by QCA1 appeared to comply with WPS-B-P-2213-B-U3b-FCM as verbally identified by QCA1.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

your project.

Inspected By: Goulet, George

Quality Assurance Inspector

Reviewed By: Riley, Ken

QA Reviewer